

# A new species of *Phobaeticus* Brunner von Wattenwyl, from the Philippines (Phasmatidae)

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## Abstract

*Phobaeticus lumawigi* n.sp. is described from a single female collected from Luzon, Philippines and deposited in the Natural History Museum, London. This species is distinguished from others in the genus by its unusual leg serration. *Pharnacia rigida* Redtenbacher, 1908 is returned to the genus *Pharnacia* Stål, 1877 (from *Phobaeticus* Brunner von Wattenwyl, 1907).

## Key words

Phasmida, *Phobaeticus lumawigi* n.sp., Philippines.

## Introduction

Mr Ismael Lumawig (Manila, Philippines) recently made an interesting collection of stick-insects from various parts of the Philippines, which have been sent to me for identification; they include several large stick-insects from Mountain Province, North Luzon, all except one identified as *Pharnacia ponderosa* Stål, 1877, type species of *Pharnacia* Stål, 1877. This single female is described as the first *Phobaeticus* Brunner von Wattenwyl, 1907, species to be recorded from the Philippines; other Asian representatives of this genus include the longest known insects. The taxonomy follows that of Brock (1996), which corrected various errors in the literature relating to 'giant' stick-insects, designated a type species for *Phobaeticus* and, in particular, pointed out that *Phobaeticus* includes species with either winged or wingless males; females are always wingless. The genus belongs to the family Phasmatidae, subfamily Phasmatinae.

### *Phobaeticus* Brunner von Wattenwyl, 1907

*Phobaeticus* Brunner von Wattenwyl, 1907: 194. Type species: *Phobaeticus sobrinus* Brunner von Wattenwyl, 1907: 184, pl. 7.1a (♂), 1b (♀); designated by Brock, 1996: 30 (type locality - Sumatra, Si-Rambé).

### *Phobaeticus lumawigi* n.sp.

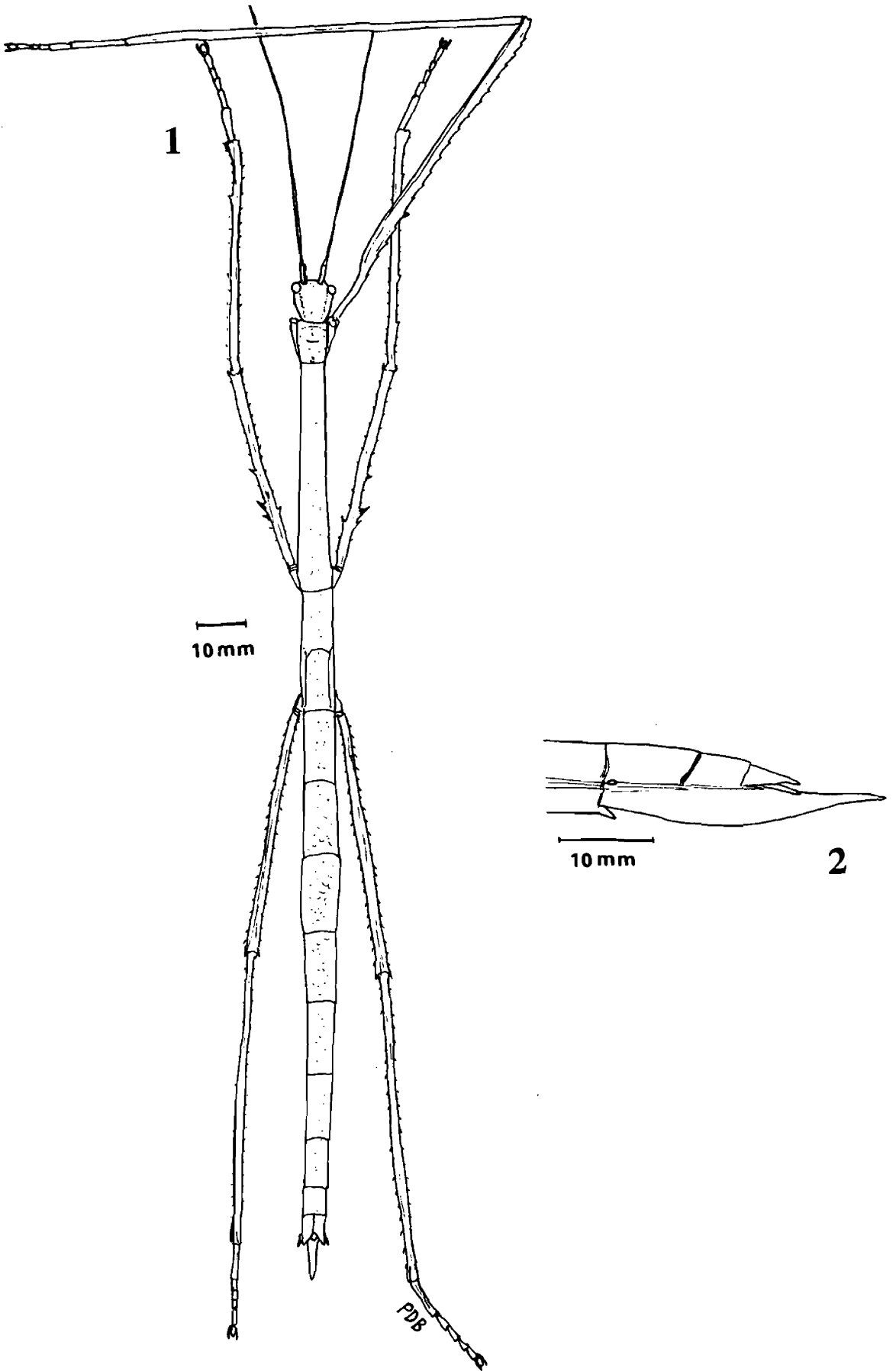
Holotype ♀: Philippines, Mountain Province, North Luzon, VII.1996, leg. I. Lumawig (BMNH, London).

Female: Elongate, completely brown, largely smooth, with serrate legs, including a few larger dentations on upper third of all femora; end of anal segment sharply triangularly incised.

Head: Segment marginally longer than wide, with indistinct dark lines from eyes to back of head. Eyes large, brown. Antennae same shade as body, basal segment long and thin, 2.5 times length of next segment; tips broken off (believed to exceed length of fore femora originally).

Thorax: Pronotum shorter and narrower than head, with a central indentation; viewed laterally, front and hind part of segment are slightly raised. Mesonotum long and slender, almost 6.5 times length of pronotum, and tapered gently towards hind part of segment. Metanotum much shorter than mesonotum.

Abdomen: About same width as thorax; ninth segment only half the length of eighth. Anal segment slightly longer than ninth; with a bold triangular incision, although the extreme margins are rounded and covered with small hairs; a central, rounded extension (the lamina supraanalis) protrudes beneath the incision. Minute hairs present on abdomen, which is otherwise smooth. Cerci medium sized, slender, tapering sharply to an almost pointed tip.



Figures 1 & 2. *Phobaeticus lumawigi* n.sp.  
1. Dorsal view. 2. End of abdomen, lateral view.

Operculum long, projecting beyond end of anal segment; rather tapered to a narrow tip. Distal end of underside of seventh segment split into two central, stout pointed extensions.

Legs: Numerous small serrations on femora and tibiae, typical of the genus (but sometimes larger in other species). Ventro-anterior carina of fore femur with a medium sized triangular spine-like lobe four-tenths from base, beneath the regular serrations which are more tooth-like than those on mid and hind femora. Mid and hind femora with large black sub-basal triangular spine-like lobe on dorso-anterior carina, followed by a smaller lobe after a gap of approximately 6mm; a pair of large spine-like lobes are present on the ventral carinae beneath the largest spine (left hind leg has been regenerated and is slightly shorter than normal). Mid tibiae also with a few larger lobes, both apically and basally, and an apical broadened crest at base of dorsal surface; features also present to a lesser degree on hind tibiae. Tarsi long.

Measurements (left fore leg is missing; measurements of hind leg are taken from the right leg): Body length 202mm, head 9mm, antennae 62mm, pronotum 7.5mm, mesonotum 48.5mm, metanotum 14mm (25mm, including first abdominal or median segment). Femora: fore 62mm, mid 46mm, hind 55mm. Tibiae: fore 83mm, mid 50mm, hind 65mm. Operculum 30mm, cerci 3mm.

Etymology: Named after the collector Ismael Lumawig, in recognition of his considerable recent efforts and enthusiasm in collecting stick-insects, despite the presence of venomous snakes in some localities!

## Discussion

This insect, the first *Phobaeticus* species recorded from the Philippines, may be distinguished from other taxa by the unusual spine formation on its legs. In the absence of a male, it is not clear with which "group" within the genus this species is closely linked i.e. those with winged or wingless males. The egg is not known, but the adult morphology is sufficient to readily distinguish *Pharnacia* from *Phobaeticus*. I am aware of a current study placing considerable importance on eggs in *Phobaeticus* and related taxa; however, whilst the study of eggs may assist in distinguishing closely related taxa, variation of eggs within a genus can sometimes be striking and until the eggs of a number of species are known, it does not appear practical to draw meaningful conclusions.

Since publication of my 1996 paper (which includes listings of *Pharnacia* and *Phobaeticus* species), I have been able to examine type material in the Naturhistorisches Museum Wien; as a result, I here reinstate *Pharnacia rigida* Redtenbacher, 1908: 453 (holotype locality - Sumatra: Mt Battak) in the genus *Pharnacia* (automatically transferred to *Phobaeticus* in my 1996 paper). It will undoubtedly be necessary to make further changes, following Brunner von Wattenwyl and Redtenbacher's difficulty in distinguishing between the genera. However, this will require critical examination of all relevant taxa, comparing specimens alongside each other to establish the correct synonymy.

## Acknowledgement

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## References

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